

Coleoptera at Light in Delaware.

By C. O. HOUGHTON.

The present list, aside from representing a part of the Coleoptera to be found at Newark, Delaware, may be of some interest to the collector of beetles as illustrating what may be done by means of collecting with a trap-lantern and the species which are attracted thereto. It should also be of some value to the economic entomologist for the latter reason, and it is principally on this account that the material has been worked up and the data placed in shape for publication.

During a part of the season of 1901, Prof. E. D. Sanderson ran a series of trap-lanterns at Newark and at other places in this State with a view of determining something relative to their value from an economic standpoint. These lanterns were of various makes and sizes, and an immense amount of material was collected, hardly any of which has been worked up, however, and concerning which nothing has as yet been published. The writer has been working on the Coleoptera thus taken at Newark, and this list embraces only those species taken during one night, the 13th of June, 1901, in a Gillette trap-lantern,* with reflectors. Carbon bisulphide was used as a killing agent and all specimens were bottled in alcohol the following morning. Prof. Sanderson's notes regarding weather conditions for that night were "cooler and cloudy," the night previous having been "quite warm."

The question as to the value of trap-lanterns, from the standpoint of an economic entomologist, is one that has been much discussed during the past few years, and is one upon which all entomologists do not agree; and it would seem desirable therefore that we have more data upon the subject from various sections of the country. As is well known, certain species of beetles (to take the Coleoptera for illustration) are strongly attracted to light, and at certain times these may be taken in great numbers in trap-lanterns. This fact is well

* For a description of this type of lantern see Proc. 9th Ann. Meeting Assoc. Economic Entomologists, p. 75, and for illustration of whole apparatus, Bul. 43 Colo. Agric. Expt. Sta., p. 22.

evidenced in this list, as will be seen by referring to the numbers following *Clivina impressifrons*, *Agonoderus pallipes*, *A. partiaris*, *A. pauperculus*, *A. testaceus*, *Stenolophus ochropetrus*, etc., etc. Other species are rarely or never attracted to lights, and it would be folly to attempt to reduce their numbers by the use of trap-lanterns.

If entomologists in various parts of the country would endeavor to get data upon the insects of each order as to what forms are and what are not noticeably attracted to light, it would be possible to settle once and for all the question as to the value of the trap-lantern for all of our principal insect pests. Nor would data of this sort be of value to the economic entomologist alone; the collector and systematic worker should get from such data points which ought to be of great value to him, and there is no doubt that work of this sort would add greatly to our knowledge of the geographical distribution of our insects.

There are included in this list twenty-five families representing seventy genera and one hundred and twelve species. Nearly twenty-five hundred specimens were taken. Nearly one-half of these, including most of the small Caribidæ, was determined by Mr. Chas. Liebeck. About fifty species were named by Mr. E. A. Schwarz through the kindness of Dr. L. O. Howard; the writer is responsible for the determination of the remainder. The numbers following the names indicate the number of specimens that were taken of each species.

CARABIDÆ.		
		<i>Badister elegans Lec</i> 1
<i>Dyschirius erythrocerus Lec</i> 2		<i>Platynus tenuis Lec</i> 1
“ <i>filiformis Lec</i> 2		“ <i>atratus Lec</i> 4
<i>Clivina impressifrons Lec</i> 121		“ <i>æruginosus Dej</i> 12
“ <i>bipustulata Fab.</i> 33		“ <i>lutulentus Lec.</i> 1
<i>Bembidium variegatum Say</i> 5		<i>Casnonia pennsylvanica Linn.</i> 43
“ <i>versicolor Lec.</i> 1		<i>Lebia grandis Hentz</i> 13
“ <i>affine Say</i> 6		“ <i>atriventris Say</i> 19
<i>Tachys proximus Say</i> 3		“ <i>pulchella Dej.</i> 1
“ <i>scitulus Lec</i> 3		“ <i>viridis Say</i> 1
“ <i>corruscus Lec</i> 1		“ <i>viridipennis Dej</i> 1
“ <i>vivax Lec</i> 1		“ <i>analis Dej.</i> 1
<i>Pterostichus sayi Brullé.</i> 49		<i>Helluomorpha bicolor Harr.</i> 3
<i>Loxandrus erraticus Dej.</i> 1		<i>Chlænium tomentosus Say</i> 4

<i>Geopinus incrassatus Dej.</i> . . .	1
<i>Agonoderus lineola Fab.</i> . . .	4
" <i>pallipes Fab.</i> . . .	630
" <i>partarius Say.</i> . . .	89
" <i>pauperculus Dej.</i> . . .	151
" <i>indistinctus Dej.</i> . . .	61
" <i>testaceus Dej.</i> . . .	444
<i>Harpalus spadiceus Dej.</i> . . .	1
<i>Stenolophus conjunctus Say.</i> . . .	1
" <i>ochropezus Say.</i> . . .	147
" <i>alternans Lec.</i> . . .	1
<i>Acupalpus hydropicus Lec.</i> . . .	21
" <i>carus Lec.</i> . . .	3
" <i>longulus Dej.</i> . . .	2
" <i>rectangulus Chd.</i> . . .	73
<i>Bradycellus rupestris Say.</i> . . .	45
<i>Anisodactylus carbonarius Say.</i> . . .	2
" <i>baltimorensis Say.</i> . . .	3
" <i>cœnus Say.</i> . . .	3
" <i>sericeus Harr.</i> . . .	5

DYTISCIDÆ.

<i>Bidessus affinis Say.</i>	1
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HYDROPHILIDÆ.

<i>Berosus subsignatus Lec.</i>	1
<i>Cercyon prætextatum Say.</i>	4

PSELAPHIDÆ

<i>Decarthron abnorme Lec.</i>	6
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STAPHYLINIDÆ.

<i>Cryptobium badium Grav.</i>	2
" <i>bicolor Grav.</i>	1
<i>Lathrobium longiusculum Grav.</i>	1
" <i>collare Er.</i>	8
" <i>ventrale Lec.</i>	69
<i>Lithocharis corticina Grav.</i>	1
<i>Pinophilus latipes Grav.</i>	1
<i>Bledius semiferrugineus Lec.</i>	1

PHALACRIDÆ.

<i>Phalacrus pumilio Lec.</i>	36
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CUCUJIDÆ.

<i>Læmophilœus biguttatus Say.</i>	5
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CRYPTOPHAGIDÆ.

<i>Tomarus pulchellus Lec.</i>	1
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MYCETOPHAGIDÆ.

<i>Litargus 6-punctatus Say.</i>	6
<i>Typhœa fumata Linn.</i>	13

NITIDULIDÆ.

<i>Carpophilus brachypterus Say.</i>	3
<i>Soronia undulata Say.</i>	2

LATRIDIIDÆ.

<i>Melanophthalmus distinguenda</i> <i>Com.</i>	22
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TROGOSITIDÆ.

<i>Monotoma picipes Hbst.</i>	1
<i>Bactridium striolatum Reit.</i>	1

DASCYLLIDÆ.

<i>Ptylodactyla sernicollis Say.</i>	3
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ELATERIDÆ.

<i>Monocrepidius bellus Say.</i>	53
<i>Drasterius elegans Fab.</i>	10
<i>Glyphonyx quietus Say.</i>	1
<i>Melanotus communis Gyll.</i>	2
" <i>dubius Lec.</i>	1
<i>Limonius auripilis Say.</i>	3

THROSCIDÆ.

<i>Throsacus chevrolati Bonv.</i>	14
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LAMPYRIDÆ.

<i>Plateros floralis Melsh.</i>	1
<i>Photuris pennsylvanica DeG.</i>	4
<i>Chauliognathus marginatus Fab.</i>	1
<i>Podabrus basilaris Say.</i>	2
<i>Telephorus lineola Fab.</i>	7
" <i>rectus Melsh.</i>	1

PTINIDÆ.

<i>Hemiptychus gravis Lec.</i>	2
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SCARABÆIDÆ.

<i>Atenius gracilis Melsh.</i>	4
" <i>cognatus Lec.</i>	1

Aphodius ruricola <i>Melsh.</i> . . .	33	MORDELLIDÆ.	
“ rubeolus <i>Beauv.</i> . . .	1	Mordellistena vapida <i>Lec.</i> . . .	1
“ stercorosus <i>Melsh.</i> . . .	2	“ nigricans <i>Melsh.</i> . . .	1
Bolboceras lazarus <i>Fab.</i> . . .	1	“ pustulata <i>Melsh.</i> . . .	1
Diplotaxis frondicola <i>Blanch.</i> . . .	1		
Anomala undulata <i>Melsh.</i> . . .	1	ANTHICIDÆ	
		Notoxus bicolor <i>Say.</i>	15
CERAMBYCIDÆ.		“ monodon <i>Fab.</i>	19
Elaphidion parallelum <i>Newm.</i> . . .	2	Anthicus haldemani <i>Lec.</i>	1
Heterachthes ebenus <i>Newm.</i> . . .	2	“ cervinus <i>Laf.</i>	1
CHRYSOMELIDÆ.		CURCULIONIDÆ.	
Diabrotica 12-punctata <i>Oliv.</i> . . .	15	Listronotus latiusculus <i>Boh.</i> . . .	2
“ vittata <i>Fab.</i>	8	Macrops delumbis <i>Gyll.</i>	1
Haltica ignita <i>Ill.</i>	14	“ sparsus ? <i>Say.</i>	2
		“ porcellus <i>Say.</i>	16
TENEBRIONIDÆ.		Eudalus limatulus <i>Gyll.</i>	1
Hypophlæus piliger <i>Lec.</i>	1	Lissorhoptrus simplex <i>Say.</i>	2
		Conotrachelus nenuphar <i>Hbst.</i>	2
MELANDRYIDÆ.		“ senicuius <i>Lec.</i>	13
Eustrophus bicolor <i>Say.</i>	1		

Two New Mymaridæ from Russian Turkestan.

BY WILLIAM H. ASHMEAD, M.A., D.Sc.

Recently, Prof. L. Berg, Custodian of the Department of Ichthyology, of the Zoological Museum of the Imperial Academy of Sciences, of St. Petersburg, Russia, sent me two parasitic Hymenoptera for names, taken by him in sweet water, at Syr-darja, Russian Turkestan, which prove to be new species in the family Mymaridæ.

They are without doubt parasitic in the eggs of some aquatic insect, probably in the eggs of Dragon-flies (Odonata), as Polynemæ have been bred in the United States by Prof. James G. Needham from the eggs of these insects.

Genus **ANAGRUS** Haliday.

Anagrus hydrophilus n. sp.—♀.—Length 0.5 mm. Black and shining, the head in front brownish, the mandibles, the legs, except the last joint of the tarsi, and the antennæ, except the last joint of the club, pale yellowish; the last joint of the tarsi is fuscous, the last joint of the antennæ brownish; the wings are hyaline longly fringed, with the short marginal vein brown. The 9-jointed antennæ end in a large ovate single jointed